

VOLUME 27

NUMBER 4

OCTOBER 2018

SPECIAL
ISSUE

CQH

Cambridge
Quarterly of
Healthcare
Ethics

*A Quarterly Journal Devoted to
Engaging a World Community of
Bioethicists*

Clinical Neuroethics

CAMBRIDGE
UNIVERSITY PRESS



**Cambridge
Quarterly of
Healthcare
Ethics**

A Quarterly
Journal Devoted
to Engaging a
World Community
of Bioethicists

EDITOR

Thomasine Kushner, *University of California, Berkeley*
kushnertk@gmail.com

ASSOCIATE EDITOR

James Giordano, *Georgetown University Medical Center*

EDITORIAL BOARD

Yves Agid, *Institut du Cerveau et de la Moelle Épinière, France*
 Jennifer Chandler, *University of Ottawa, Canada*
 Markus Christen, *University of Zurich, Switzerland*
 Joseph J. Fins, *Weill Medical College of Cornell University, New York*
 Paul J. Ford, *Department of Bioethics, Cleveland Clinic*
 Grant Gillett, *University of Otago Medical School, New Zealand*
 John Harris, *University of Manchester, England*
 Stephen Hauser, *University of California, San Francisco*
 Judy Illes, *The University of British Columbia, Canada*
 Philipp Kellmeyer, *University of Freiburg Medical Center, Germany*
 Catherine Madison, *California Pacific Medical Center, San Francisco*
 Christine Mitchell, *Harvard Medical School*
 Erik Parens, *The Hastings Center, Garrison, New York*
 John R. Shook, *University at Buffalo*
 Alan Yee, *California Pacific Medical Center*

The Cambridge Bioethics Education Working Groups: Connecting Bioethics Educators Around the World

The purpose of the Cambridge Bioethics Education Working Groups is to encourage people and institutions to work together on developing bioethics education in their countries. These focus groups invite others to share their information and develop mutual projects to further how bioethics is taught in universities, hospitals, and for the general public.
<https://www.cambridge.org/core/journals/cambridge-quarterly-of-healthcare-ethics/cambridge-bioethics-education-working-groups>

EDITORS

Thomasine Kushner, PhD, *University of California, Berkeley*
 Steve Heilig, MPH, *San Francisco Medical Society*

ASSOCIATE EDITORS

Matti Häyry, *Aalto University, Helsinki, Finland*
 Tuija Takala, *University of Helsinki, Finland*
 David C. Thomasma, PhD, Co-Editor, 1992–2002

EDITORIAL BOARD

Akira Akabayashi, *Kyoto University, Japan*
 William Andereck, *Medicine and Human Values, California Pacific Medical Center, San Francisco*
 Daniel Callahan, *The Hastings Center, Garrison, New York*
 Arthur Caplan, *Division of Medical Ethics, NYU Langone Medical Center, New York*
 Andrew Dobson, *Keele University, England*
 Denise Dudzinski, *Department of Bioethics and Humanities, University of Washington School of Medicine*
 Joseph J. Fins, *Division of Medical Ethics, Weill Medical College of Cornell University, New York*
 Leonard M. Fleck, *Center for Ethics and Humanities, Michigan State University*
 Paul J. Ford, *Department of Bioethics, Cleveland Clinic*
 James Giordano, *Georgetown University Medical Center*
 Amnon Goldwirth, *Stanford University School of Medicine*
 John Harris, *University of Manchester, England*
 Gerrit K. Kimsma, *Vrije Universiteit Amsterdam*
 Eric M. Meslin, *Indiana University Center for Bioethics, Indianapolis*
 Christine Mitchell, *Center for Bioethics, Harvard Medical School*
 Jonathan D. Moreno, *Center for Bioethics, University of Pennsylvania School of Medicine, Philadelphia*
 Rosamond Rhodes, *Mount Sinai School of Medicine, New York*
 Pablo Rodriguez del Pozo, *Weill Medical College of Cornell University in Qatar*
 Doris Schroeder, *Centre for Professional Ethics, University of Central Lancashire, England*
 Robyn Shapiro, *Center for the Study of Bioethics, Medical College of Wisconsin*
 Pavel Tichtchenko, *Institute of Philosophy, Academy of Science, Moscow, Russia*
 Griffin Trotter, *Center for Health Care Ethics, Saint Louis University*
 Mark R. Wicclair, *University of Pittsburgh & West Virginia University*

Cambridge Quarterly of Healthcare Ethics

Volume 27, Number 4, October 2018

CONTENTS

Contributors	537
--------------	-----

From the Editors

If It Only Had a Brain: What "Neuro" Means for Science and Ethics	
--	--

THOMASINE KUSHNER AND JAMES GIORDANO	540
--------------------------------------	-----

The Road Less Traveled

Constructive Disappointment and Disbelief: Building a Career in Neuroethics	
--	--

JOSEPH J. FINS	544
----------------	-----

Symposium: Competing Identities of Neuroethics

GUEST EDITOR: JENNIFER A. CHANDLER

Pragmatic Convergence and the Epistemology of an Adolescent Neuroethics	
--	--

JOSEPH J. FINS AND JUDY ILLES	554
-------------------------------	-----

The New Ethics of Neuroethics	
-------------------------------	--

TOM BULLER	558
------------	-----

Two Problematic Foundations of Neuroethics and Pragmatist Reconstructions	
--	--

ERIC RACINE AND MATTHEW SAMPLE	566
--------------------------------	-----

Pragmatic Neuroethics: Lived Experiences as a Source of Moral Knowledge	
--	--

GABRIELA PAVARINI AND ILINA SINGH	578
-----------------------------------	-----

Neurolaw and Neuroethics	
--------------------------	--

JENNIFER A. CHANDLER	590
----------------------	-----

Articles

Who Owns My Autonomous Vehicle? Ethics and Responsibility in Artificial and Human Intelligence	
---	--

JOHN HARRIS	599
-------------	-----

Neurophilosophical and Ethical Aspects of Virtual Reality Therapy in Neurology and Psychiatry	
--	--

PHILIPP KELLMEYER	610
-------------------	-----

Neuroscience and Social Problems: The Case of Neuropunishment	
--	--

ALENA BUYX AND DAVID BIRKS	628
----------------------------	-----

Contents continued

Contents continued

Brain–Computer Interfaces: Lessons to Be Learned from the Ethics of Algorithms ANDREAS WOLKENSTEIN, RALF J. JOX, AND ORSOLYA FRIEDRICH	635
Call of Duty at the Frontier of Research: Normative Epistemology for High-Risk/High-Gain Studies of Deep Brain Stimulation MERLIN BITTLINGER	647
Ethical Considerations in Ending Exploratory Brain–Computer Interface Research Studies in Locked-in Syndrome ERAN KLEIN, BETTS PETERS, AND MATT HIGGER	660
Do New Neuroimaging Findings Challenge the Ethical Basis of Advance Directives in Disorders of Consciousness? ORSOLYA FRIEDRICH, ANDREAS WOLKENSTEIN, RALF J. JOX, NIEK ROGGER, AND CLAUDIA BOZZARO	675
Amplio, Ergo Sum DAVID R. LAWRENCE	686
Doing Good, Choosing Freely: How Moral Enhancement Can Be Compatible with Individual Freedom JOSHUA M. BROSTOFF	698
Concussion in Sport: The Unheeded Evidence GRANT GILLETT	710
Neuroethics: A Conceptual Approach MICHELE FARISCO, ARLEEN SALLES, AND KATHINKA EVERNS	717
Looking Ahead: The Importance of Views, Values, and Voices in Neuroethics—Now JAMES GIORDANO	728

Departments and Columns

<i>Pathographies: Voices of Illness</i> My Unexpected Journey from Medication to Meditation ATIA SATTAR	732
<i>What Do I Do Now?</i> The Case: Medically Disabled or Malingering?	738
Commentary: Treating the Patient Who Has the Disease ERIC H. DENYS	738
Commentary: Doing the Most Good with the Least Harm in Cases of Suspected Malingering BRIAN ANDREWS	740

Best Practices Guidelines for Publishing in the Bioethics Literature

EDITORIAL OFFICE: Editorial correspondence, including manuscript submission, should be addressed to Thomasine Kushner, PhD. To facilitate review, please submit manuscripts as electronic copy, preferably in MS Word, to kushnertk@gmail.com. Books for review should be sent to Greg Loeben, 2532 N. 4th Street, #442 Flagstaff, AZ 86004. Books for review on neuroethics should be sent to Thomasine Kushner, 1001 Bridgeway #A1, Sausalito, CA 94965.

SUBSCRIPTION INFORMATION: *Cambridge Quarterly of Healthcare Ethics* (ISSN 0963-1801) is published quarterly, in January, April, July, and October by Cambridge University Press, One Liberty Plaza, Floor 20, New York, NY 10006/ Cambridge University Press, Journals Fulfillment Department, UPH, Shaftesbury Road, Cambridge CB2 8BS, UK. Annual subscription rates for volume 27 (2018) USA, Canada, and Mexico/Elsewhere: Institutional rates, print and online: \$638/£397; online only: \$506/£315; print only: \$633/£395. Individual rates, print only: \$132/£80. Single part: \$182/£114. Students and retirees: \$109/£68. American Society for Bioethics and Humanities members: \$91/£54. Prices include postage. Subscription offices: One Liberty Plaza, Floor 20, New York, NY 10006, USA; outside the USA, Canada, and Mexico: Cambridge University Press, Journals Fulfillment Department, UPH, Shaftesbury Road, Cambridge CB2 8BS, UK. Claims for missing issues should be made immediately after receipt of the next issue. *Cambridge Quarterly of Healthcare Ethics* and other Cambridge journals can be found at <http://journals.cambridge.org>.

Cambridge Quarterly of Healthcare Ethics is a partner journal of the American Society for Bioethics and Humanities.

Periodicals postage paid at New York, NY and additional mailing offices. POSTMASTER: Send address changes in the USA, Canada, and Mexico to *Cambridge Quarterly of Healthcare Ethics*, Cambridge University Press, One Liberty Plaza, Floor 20, New York, NY 10006, USA. Send address changes elsewhere to *Cambridge Quarterly of Healthcare Ethics*, Cambridge University Press, Journals Fulfillment Department, UPH, Shaftesbury Road, Cambridge CB2 8BS, UK.

© Cambridge University Press 2018. All rights reserved. No part of this publication may be reproduced, in any form or by any means, electronic, photocopying, or otherwise, without permission in writing from Cambridge University Press. Policies, request forms, and contacts are available at: <http://www.cambridge.org/rights/permissions/permission.htm>

Cambridge Quarterly of Healthcare Ethics is indexed in Index Medicus and in the ASSIA, ISI, MEDLINE, Philosopher's Index, and Proquest databases.

Permission to copy (for users in the USA) is available from Copyright Clearance Center, <http://www.copyright.com>, email: info@copyright.com.